ABSTRACT OF THE DISCLOSURE

A radio wave propagation characteristics estimating system can estimate the propagation characteristics of a radio wave by ray tracing method that are suited for communication systems that occupy a large frequency band. The reflection coefficients, the diffraction coefficients and the transmission coefficients and the space attenuation ratio of the propagation course of each ray that arrives at reception point R1 are determined for each of a plurality of frequencies f1 to fM within the band occupied by the radio communication system that is the target of estimation to determine the intensity and the arrival delay time of the ray arriving at the reception point R1 for each of the frequencies f1 to fM. As a result, the frequency transfer functions for the frequencies f1 to fM are obtained. Then, the obtained frequency transfer functions are synthetically combined and the result of the synthesis is defined as radio wave propagation characteristic of the radio communication system between transmission point T1 and reception point R1.